

Olmsted County, Minnesota
Well Water Supply Construction and Well Abandonment Regulation
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Health Ordinance
Adopted: 1985

PUBLIC HEALTH REGULATION NO. 40

WELL WATER SUPPLY CONSTRUCTION AND WELL ABANDONMENT REGULATION FOR OLMSTED COUNTY

A regulation providing for the proper construction of well, well water supplies, and the orderly and proper abandonment of wells.

Section 1 Purpose

- A. The Olmsted County Board accepts the premise that an abundant source of pure water is essential to the maintenance of the public's health and the continued economic and social development of the county.
- B. Olmsted County has an extensive supply of groundwater. These waters are subject to contamination from a variety of sources. Because of the karst geology, it is essential that all wells be properly constructed and that all wells not in use be properly abandoned to prevent contaminated waters from entering the abandoned wells.
- C. These provisions are adopted for the purpose of halting the travel of pollutants to the subsurface water supply through improperly abandoned water wells and to assure proper development of new well water supplies.
- D. This regulation provides for the control of construction, repair, and abandonment of wells in Olmsted County Minnesota, and indicates the authority for penalty for violation thereof.

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A. It shall be the duty of the Olmsted County Health Department to implement this regulation; to issue all permits, notices of violation, and notices of revocation of permit; to make reports required by this regulation; to take complaints to the county attorney of violations of the provisions of this regulation; to examine work in progress; to determine compliance with all provisions of this regulation and to keep proper records on all trans-actions conducted under this regulation.

B. The Olmsted County Health Department is hereby given authority to make inspection and perform tests necessary in the performance of this duty; to order the suspension of any work being done in violation of the provision: of this regulation; and to prohibit the use of any material or operation of any machinery in violation of the provision: of this regulation.

Section 4 Bonding of Well Contractors

A. No person, partnership, corporation, or other entity shall engage in the abandonment, construction, or repair of wells within the county of Olmsted, Minnesota, nor shall a permit be Issued therefor, unless such person, partnership, corporation, or other entity shall have in effect at all times a bond in the principal sum of \$10,000 conditioned upon the observance of all laws, ordinances, regulations, and standards relative to the construction of wells and upon the performance of all work required by this regulation.

B. Such bond shall run to the county of Olmsted as obligee and shall be for the benefit of any person, firm, or corporation who shall sustain any injury covered by the bond and shall provide that any person. firm, or corporation so Injured may bring an action in his or its own name the recovery of damage upon the bond in addition to any other remedy.

C. Proof of the appropriate bond shall be made available at the Olmsted County Health Department Whenever the bond Is renewed, updated, or upon request by the department.

Section 5 Permit Requirements

A., Permits Required

No person, partnership, corporation. or other entity shall construct, reconstruct, or abandon a well within the county of Olmsted, Minnesota, without having first obtained a permit to do so from

the Olmsted County Health Department. Reconstruction shall be defined as work which includes the modification of the well casing, screen, diameter, or depth below the upper termination of the well casing (the point 12 inches above grade).

3. Other Permits

The county or a town or city within the county shall not issue a building, remodeling, alteration, or demolition permit for buildings or facilities until the proposed water supply or proposed abandonment procedures for well on that property have been approved by the Olmsted County Health Department.

C. Application for a Well Construction or Abandonment Permit

An application for a permit shall be made in writing and signed by a well contractor licensed by the State of Minnesota. Such application shall be made in duplicate upon forms furnished by the Olmsted County Health Department. One copy shall remain on file in the office of the health department. This application shall be submitted and the permit issued prior to any construction or repair work.

D. Approval of Application

If after consideration of the application for permit, the Olmsted County Health Department shall be satisfied that the construction contemplated complies with the provisions of this regulation, the health department shall issue a permit. One copy of the permit shall be kept continuously available at the work site during its progress.

E. Rejection of Application

If after consideration of the application for permit, the Olmsted County Health Department shall be satisfied that the work contemplated will not comply with the provisions of this regulation, the health department shall refuse to issue a permit until such application has been revised or corrected.

F. Permits not Issued

No well construction permit shall be issued where a public or municipal water supply is available. No well construction permit that will allow replacement of an existing well shall be issued until provisions have been made for proper abandonment of such well in accordance with applicable regulations and standards.

C. Alteration of Plans

Any construction authorized by the approved application and any accompanying plat or scale drawing shall not be altered or modified without consent of the Olmsted County Health Department.

H. Expiration of Permit

All well construction and well abandonment permits Issued hereunder by the Olmsted County Health Department shall expire after one year unless the work Contemplated and authorized is in actual progress.

I. Work Not Authorized

No person, partnership, or corporation shall continue work on any well after the Olmsted County Health Department shall have issued in writing, a notice to suspend work nor shall the use of material or machinery be continued whenever use of the material or machinery is contrary to the provisions of this regulation.

Section 6 Notification for Inspection

A. It shall be the duty of the well contractor to notify the Olmsted County Health Department in person, by telephone, or in writing:

1. when construction will begin;
2. when drilling and/or nitrate sampling is completed;
3. when grouting a well under construction or properly abandoning a well will begin; and
4. when disinfection has been Completed and the well is ready to be sampled.

3. Notice for inspections shall be made between the hours of 8 a.m. and 4 p.m. on the workday preceding the day Inspection Is desired. If adjustment. of the specific inspection time are necessary. the final notice shall be given not less than four hours before a well is Scheduled for grouting or sealing.

C. If a health department sanitarian does not appear for an inspection at the designated time, excluding Saturdays, Sundays, or holidays the contractor/permittee may proceed and shall file an affidavit with the health department that the work was Installed in accordance with the Standards, limitations, approved plans., and permit and that it was free from defects. Information shall be provided as to whether the owner or his authorized agent was present when the construction or tests were made. The permittee shall also include a detailed "as built" plan of the well's components and relative location to the geologic formations, water table, and surficial features, or structures.

Section 7 Water Well Record

A. A copy of the Minnesota Department of Health water well record shall be submitted by the Minnesota licensed well contractor to the Olmsted County Health Department within thirty (30) days of water well construction or reconstruction and sealing of abandoned wells.

Section 8 Construction Standards

A. Minnesota Rules Chapter 4725 governs except that the only acceptable type of well construction for potable water shall be a cased and grouted well or cased well where permitted by the Minnesota Department of Health Water Well Code. Minnesota Rules, Chapter 4725, and this regulation.

Section 9 Acceptability of a Waterbearing Formation for a Potable Water Supply

A. Organisms of the coliform group in concentrations of one or more per 100 ml shall be considered indicative of pollution. Nitrate nitrogen in excess of 1 mg/l shall also be considered indicative of pollution. The acceptability of terminating a well in any waterbearing formation encountered during construction or reconstruction shall be dependent upon the water having concentrations of nitrate nitrogen or coliform bacteria less than levels as defined above.

B. Prior to completing construction of the well in the aquifer as permitted, the well contractor shall arrange for testing of the water for nitrate nitrogen after setting liner casing but before grouting. The Olmsted County Health Department may require the sample or a duplicate sample be submitted to its Laboratory for analysis. If the nitrate nitrogen level is less than 1.0 mg/l the well contractor may proceed with grouting after the required notice to the health department.

C. If the nitrate nitrogen level of the sample before grouting is 1.0 mg/l or greater but less than 3.0 mg/l and other factors indicate that the nitrate nitrogen level in the finished well will be less than 1 mg/l, the well contractor may grout the well upon obtaining a signed statement of acceptance from the well owner and approval of the Olmsted County Department of Health. The statement shall state that the well owner has been apprised that the nitrate nitrogen level is greater than 1 mg/l and that he will accept the finished grouted well even if it shows nitrate nitrogen greater than 1 mg/l provided that all other known construction practices were made in accordance with the well code standards. Forms for such statement will be provided by the health department. The statement shall be attached to copies of the well construction permit application filed at the health department.

D. If the nitrate nitrogen level is 3.0 mg/l or greater, the well shall be drilled deeper to obtain water meeting the pregrouting requirements stated above.

Section 10 Abandoned Wells

A. Minnesota Rules Chapter 4725 governs, except as provided otherwise herein.

3. A well is defined as an abandoned well if based on inspection of the well and site or an analysis of water from the well, any of the following conditions exist:

1. use of the well has been replaced by another well or new well or use of the well has otherwise been abandoned;

2. the well exists on residential property that is now served by a public community water supply;
3. the well is not usable or is not equipped with an operable pump;
4. the well has not been properly sealed in abandonment or is filled with unapproved materials; or
5. the well is located, constructed, or maintained in such a manner that its continued use or existence endangers the quality of the groundwater or provides a distinct health hazard to persons consuming water from the well.

C. Existing wells that are abandoned as defined in 10.02 subparagraph 1, 2, or 3 may request a permit from the health department renewed annually that will allow the well to be maintained provided that it is protected from the conditions outlined in 10.02 subparagraph 3.4 and 3.5. Similarly wells existing for commercial purposes on property served by community water may continue to be used if the well is properly constructed to prevent interconnection of surface and groundwater or interconnection of aquifers and if an annual permit is obtained from the health department.

D. The Olmsted County Health Department is authorized to take steps necessary to locate and identify abandoned wells within the county and specify corrective measures. The following procedures will be followed.

1. The existence of an improperly abandoned well is a threat and nuisance to the groundwater used by the public for potable water supplies. Therefore the Olmsted County Health Department will notify the owner of land where an abandoned well exists that the well must be properly abandoned in accordance with State of Minnesota and county of Olmsted regulations and standards. The landowner will be given 30 days to comply. In cases of imminent hazard, the compliance time may be shortened accordingly.

2. If the owner does not comply within the compliance time limit, the appropriate governing body may contact with a licensed well contractor to have the well properly abandoned.

3. Any expenses incurred by the governing body in properly abandoning the well shall be the responsibility of the property owner and if subsequently unpaid, shall be assessed against the property as provided by law.

Section 11 Waterline Pump and Pressure Tank Sizing

A. The following table and rules establish the minimum pump capacity, waterline sizing and pressures for 1 to 14 homes:

1. Pumps and Pressure Tanks

Number of Homes	Pump capacity in spa at the well head against average pressure of 50 PSI	Pressure tank size per home	
		Percharge bladder	Plain steel
1 to 2 homes	10 gpm each home	40 gallons each	80 gallons each
3 to 5 homes	5 gpm each home+10 gpm	40 gallons each	70 gallons each
6 to 14 homes	3 gpm each home+20 gpm	40 gallons each	60 gallons each

(To calculate the pump capacity of four homes as an example. multiply 5 gpm and add 10 gpm to equal the total required capacity of 30 gpm.)

2. Water Pressure and Waterline sizing

Waterlines shall provide at peak flow: (a) no more than 5 PSI of friction loss for each 100 ft. of pipe length; (b) a minimum pressure of 30 PSI to each service connection during the maximum momentary volume rate of waterflow; (c) a minimum pressure of 20 PSI to the plumbing fixture at the highest elevation; and (d) water service lines for one house shall be a minimum of 1 ft. When lengths are more than 350 ft. or when more than one home will be served by the waterlines appropriately sized larger diameter lines must be provided.

Section 12 Wells and Pumps Used for Thermal Exchange

A. If a groundwater heat pump or other thermal exchange unit is proposed to use water from the well also used for the domestic water supply, the pump capacity and pressure tank size must be increased to provide an adequate water supply for the rated capacity of the unit in addition to the minimum supply required in Section 11 for domestic use. Domestic water needs shall take priority over water demand for thermal exchange devices.

B. Discharge of water to waste from a groundwater heat pump system shall follow applicable State of Minnesota and Olmsted County regulations and standards.

C. No building permit or other relevant permits shall be issued until the plans for water use for a heat pump or other thermal exchange system using groundwater have been reviewed and acted on by the Olmsted County Health Department.

Section 13 Public Water Supply

A. Any establishment serving water to the public from a public water supply or public noncommunity water supply as defined in Minnesota Rules. Part 4720.0100, subparagraph 16.

RESOLUTION NO. 85-17

Whereas, Olmsted County public Health Regulation No. 40, a regulation set forth herein, and Notice of Intent to Enact same by resolution were duly published, and

Whereas, a public hearing on said resolution was held on January 29, 1985, in the County Commissioners' meeting room, second floor Olmsted County Courthouse. Rochester, Minnesota, and

Whereas, it is deemed to be in the public interest for the preservation of public health to adopt public Health Regulation No. 40.

NOW, THEREFORE, SE IT HERESY RESOLVED. pursuant to Minnesota Statutes 145.53. that public Health Regulation No. 10 is repealed and Public Health Regulation No. 40 the Well Water Supply Construction and Well Abandonment Regulation for Olmsted County as on file in the office of the Olmsted County Auditor is hereby adopted this 29th day of January. 1985, at Rochester, Minnesota.

OLMSTED COUNTY BOARD OF COMMISSIONERS

Harley Boetteher, Chairperson

ATTEST:

Richard C. Devlin Clerk-Administrator